

**RE: Revised exposure files**

**Krista Christensen** to: Hilbert, Timothy (hilbertj)

02/14/2013 09:01 AM

From: Krista Christensen/DC/USEPA/US

To:

Cc: Bob Benson/R8/USEPA/US@EPA, "Borton, Eric (bortonek)" <BORTONEK@UCMAIL.UC.EDU>, "brattin@srcinc.com" <brattin@srcinc.com>, David Berry/R8/USEPA/US@EPA, Thomas Bateson/DC/USEPA/US@EPA

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Thank you for clarifying that, Tim. I will delete the file sent yesterday which had the real ID's from my computer immediately. I'll start looking through the new data now, and will let you know if there are any further questions.

Thanks,  
Krista

"Hilbert, Timothy (hilbertj)" ---02/14/2013 09:42:40 AM---Krista and Tom, The change in number of rows was the expected result of cleaning the employment hist

From: "Hilbert, Timothy (hilbertj)" <HILBERTJ@UCMAIL.UC.EDU>  
To: Krista Christensen/DC/USEPA/US@EPA, Thomas Bateson/DC/USEPA/US@EPA  
Cc: Bob Benson/R8/USEPA/US@EPA, "Borton, Eric (bortonek)" <BORTONEK@UCMAIL.UC.EDU>, "brattin@srcinc.com" <brattin@srcinc.com>, David Berry/R8/USEPA/US@EPA  
Date: 02/14/2013 09:42 AM  
Subject: RE: Revised exposure files

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Krista and Tom,

The change in number of rows was the expected result of cleaning the employment history for those few workers – they had extraneous data that were eliminated.

We checked the entire dataset to see if there were other instances – so all workers received identical attention.

Regarding the IDs.... When the EPA began using these data we created pseudo IDs for each of the subjects, just to add another layer of identity protection. Yesterday we forgot to use their pseudo IDs and sent you the real IDs instead. The attached file is identical to yesterdays (2/13) except it uses the pseudo IDs you are used to seeing.

This should be the final dataset, although I've learned Krista does have a sharp set of eyes 😊

Best regards,

Tim

**From:** Christensen.Krista@epamail.epa.gov [mailto:Christensen.Krista@epamail.epa.gov]

**Sent:** Wednesday, February 13, 2013 4:11 PM  
**To:** Hilbert, Timothy (hilbertj)  
**Cc:** Benson.Bob@epamail.epa.gov; Borton, Eric (bortonek); brattin@srcinc.com; Berry.David@epamail.epa.gov; Bateson.Thomas@epamail.epa.gov  
**Subject:** RE: Revised exposure files

Hi again-

Tim, I just opened the new file and had a question. The older files (from Dec 26/Feb7/Feb 12) had 28573 rows, with IDs ranging from 10063 to 19982. The new file (Feb 13) has 28451, and it appears there are only records for IDs 11001 to 15076. Actually, it looks like none of the IDs match. Am I missing something?

Thanks,  
Krista

From: Thomas Bateson/DC/USEPA/US  
To: "Hilbert, Timothy (hilbertj)" <[HILBERTJ@UCMAIL.UC.EDU](mailto:HILBERTJ@UCMAIL.UC.EDU)>  
Cc: Bob Benson/R8/USEPA/US@EPA, "Borton, Eric (bortonek)" <[BORTONEK@UCMAIL.UC.EDU](mailto:BORTONEK@UCMAIL.UC.EDU)>, "[brattin@srcinc.com](mailto:brattin@srcinc.com)" <[brattin@srcinc.com](mailto:brattin@srcinc.com)>, David Berry/R8/USEPA/US@EPA, Krista Christensen/DC/USEPA/US@EPA  
Date: 02/13/2013 03:25 PM  
Subject: RE: Revised exposure files

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Thanks Tim.

Was the same level of attention paid to all the workers when you cleaned up the employment histories for those four who caught your attention? Might there be similar corrections on this issue down the road if only someone were to look? I want to make sure that we can call this version 'Final' before we invest in the related analyses.

Ideally, we'd like to think that all worker's employment histories received equal treatment.

Just checking, and thanks for the quick efforts!

Tom

Thomas F. Bateson, ScD MPH  
Epidemiologist  
Effects Identification & Characterization Group  
EPA/ORD/NCEA  
1200 Pennsylvania Ave. NW (Mail Code 8623P)  
Washington, DC 20460

Phone: 703-347-8570

From: "Hilbert, Timothy (hilbertj)" <[HILBERTJ@UCMAIL.UC.EDU](mailto:HILBERTJ@UCMAIL.UC.EDU)>  
To: Krista Christensen/DC/USEPA/US@EPA, Bob Benson/R8/USEPA/US@EPA  
Cc: "Borton, Eric (bortonek)" <[BORTONEK@UCMAIL.UC.EDU](mailto:BORTONEK@UCMAIL.UC.EDU)>, Thomas Bateson/DC/USEPA/US@EPA, David Berry/R8/USEPA/US@EPA, "[brattin@srcinc.com](mailto:brattin@srcinc.com)" <[brattin@srcinc.com](mailto:brattin@srcinc.com)>  
Date: 02/13/2013 01:21 PM  
Subject: RE: Revised exposure files

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Bob and Krista,

The discrepant observations you (Krista) noted were due to the corrections made in the Feb 12 file. In the process of confirming this we also cleaned up the employment history of 4 workers. The attached file will reflect the changes for these 4 workers in both the AM and GM based estimates.

Let me know if you see anything else suspicious.

Thanks  
Tim

**From:** [Christensen.Krista@epamail.epa.gov](mailto:Christensen.Krista@epamail.epa.gov) [<mailto:Christensen.Krista@epamail.epa.gov>]  
**Sent:** Wednesday, February 13, 2013 10:33 AM  
**To:** [Benson.Bob@epamail.epa.gov](mailto:Benson.Bob@epamail.epa.gov)  
**Cc:** Hilbert, Timothy (hilbertj); Borton, Eric (bortonek); [Bateson.Thomas@epamail.epa.gov](mailto:Bateson.Thomas@epamail.epa.gov); [Berry.David@epamail.epa.gov](mailto:Berry.David@epamail.epa.gov); [brattin@srcinc.com](mailto:brattin@srcinc.com)  
**Subject:** RE: Revised exposure files

Hi Bob-

Yes, that could be a source of the difference. It was not clear to me whether the number of significant digits was different in the Dec 26 vs. Feb 12 file, from the previous email. I am hopeful that Tim can clarify that question and confirm which estimates are 'correct.'

Thanks,  
Krista

▼ Bob Benson---02/13/2013 10:07:31 AM---If UC changed the number of significant digits used in the calculation and removed an incorrect mult

From: Bob Benson/R8/USEPA/US  
To: Krista Christensen/DC/USEPA/US@EPA  
Cc: "Hilbert, Timothy (hilbertj)" <[HILBERTJ@UCMAIL.UC.EDU](mailto:HILBERTJ@UCMAIL.UC.EDU)>, "Borton, Eric (bortonek)" <[BORTONEK@UCMAIL.UC.EDU](mailto:BORTONEK@UCMAIL.UC.EDU)>, Thomas Bateson/DC/USEPA/US@EPA, David Berry/R8/USEPA/US@EPA, [brattin@srcinc.com](mailto:brattin@srcinc.com)  
Date: 02/13/2013 10:07 AM  
Subject: RE: Revised exposure files

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If UC changed the number of significant digits used in the calculation and removed an incorrect multiplier to generate the Feb 12 file, it is not surprising that the new file (Feb 12) does not match the Dec 26 and Feb 7 files. What is your assumption about which one is "correct?" I would conclude that the Feb 12 file is the "correct" one.

▼ Krista Christensen---02/13/2013 05:33:16 AM---Hi Tim - Thank you for the revised files; I put the new estimates into Bill Brattin's Excel file, to

From: Krista Christensen/DC/USEPA/US  
To: "Hilbert, Timothy (hilbertj)" <[HILBERTJ@UCMAIL.UC.EDU](mailto:HILBERTJ@UCMAIL.UC.EDU)>,  
Cc: Bob Benson/R8/USEPA/US@EPA, "Borton, Eric (bortonek)" <[BORTONEK@UCMAIL.UC.EDU](mailto:BORTONEK@UCMAIL.UC.EDU)>, Thomas Bateson/DC/USEPA/US@EPA  
Date: 02/13/2013 05:33 AM  
Subject: RE: Revised exposure files

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Hi Tim -

Thank you for the revised files; I put the new estimates into Bill Brattin's Excel file, to sum exposure estimates within each year/season combination for each individual. As before, the AM-based estimates are the same as those from the Dec 26 file, for 1972 and later. There are still differences in the GM-based estimates, although the number is fewer. Comparing the Dec 26 and Feb 7 files, there were >3000 discrepant observations. Comparing the Dec 26 and Feb 12 files, there are 465 discrepant observations. For example, ID 10093 had an estimate of 0.004250 f/cc in spring of 1977 in the Dec 26 file, and an estimate of 0.004686 in the Feb 12 file.

If it's helpful I can send the excel file and SAS program I'm working with, just let me know.

Thanks,  
Krista

▼ "Hilbert, Timothy (hilbertj)" ---02/12/2013 03:05:20 PM---Hi Bob and Krista, Attached is an updated table. We have made 2 small changes to the GM table. Fir

From: "Hilbert, Timothy (hilbertj)" <[HILBERTJ@UCMAIL.UC.EDU](mailto:HILBERTJ@UCMAIL.UC.EDU)>  
To: Bob Benson/R8/USEPA/US@EPA, Krista Christensen/DC/USEPA/US@EPA  
Cc: "Borton, Eric (bortonek)" <[BORTONEK@UCMAIL.UC.EDU](mailto:BORTONEK@UCMAIL.UC.EDU)>  
Date: 02/12/2013 03:05 PM  
Subject: RE: Revised exposure files

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Hi Bob and Krista,

Attached is an updated table. We have made 2 small changes to the GM table. First, for 1977 the exposure value used to derive the CHEEQ was rounded at two decimal places in the Feb 7 datafile. It is now carried out further. The other

was a multiplier that was inadvertently left in the formula for Spring work in packaging and warehouse. This has been removed.

See if this resolves the issues you discovered and please let us know if you identify other concerns.

Thanks  
Tim Hilbert  
UC

**From:** [Benson.Bob@epamail.epa.gov](mailto:Benson.Bob@epamail.epa.gov) [<mailto:Benson.Bob@epamail.epa.gov>]  
**Sent:** Tuesday, February 12, 2013 11:00 AM  
**To:** Hilbert, Timothy (hilbertj)  
**Cc:** [Berry.David@epamail.epa.gov](mailto:Berry.David@epamail.epa.gov)  
**Subject:** Fw: Revised exposure files

Tim,  
See message from Krista below. Bill is on vacation. Can you and Eric provide an explanation for these discrepancies?

Let me know if you need the files Krista deleted.

----- Forwarded by Bob Benson/R8/USEPA/US on 02/12/2013 08:57 AM -----

From: Krista Christensen/DC/USEPA/US  
To: Bob Benson/R8/USEPA/US@EPA,  
Cc: [brattin@srcinc.com](mailto:brattin@srcinc.com), David Berry/R8/USEPA/US@EPA, Leonid Kopylev/DC/USEPA/US@EPA, Thomas Bateson/DC/USEPA/US@EPA  
Date: 02/11/2013 09:03 AM  
Subject: Re: Fw: Revised exposure files

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Hi Bob-

thanks for sending the revised files, I had a couple of questions. I'm using the sheets labeled "AM-based exposure values" and "GM-based exposure values" and comparing between the files you sent Feb 7, and those sent Dec 26. There are discrepancies in the data from 1972 and later for the GM-based estimates. For example, ID 10093 had a value of 0.00425 f/cc in spring of 1977 in the Dec 26 datafile, but a value of 0.01724 in the Feb 7 datafile, and ID 13200 had GM-based value of 0.0062092 (Dec 26) and 0.009314 (Feb 7) for spring of 1973. Actually, most of the discrepancies appear for the spring seasons, although there are some cases of mismatch for summer and fall, too. Do you know what the source of the difference might be? I didn't see any discrepancies for the 1972+ AM-based estimates.

Krista

▼ Bob Benson---02/07/2013 04:13:40 PM---Here are the new tables with the change in LA/SC ratio based on the corrected IH data. ----- Forward

From: Bob Benson/R8/USEPA/US  
To: Thomas Bateson/DC/USEPA/US@EPA, Krista Christensen/DC/USEPA/US@EPA, Leonid Kopylev/DC/USEPA/US@EPA  
Cc: [brattin@srcinc.com](mailto:brattin@srcinc.com), David Berry/R8/USEPA/US@EPA  
Date: 02/07/2013 04:13 PM

Subject: Fw: Revised exposure files

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Here are the new tables with the change in LA/SC ratio based on the corrected IH data.

----- Forwarded by Bob Benson/R8/USEPA/US on 02/07/2013 02:08 PM -----

From: "Brattin, Bill" <[brattin@srcinc.com](mailto:brattin@srcinc.com)>  
To: Bob Benson/R8/USEPA/US@EPA,  
Cc: David Berry/R8/USEPA/US@EPA  
Date: 02/07/2013 01:32 PM  
Subject: Revised exposure files

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Here are revised exposure files that can be sent to NCEA.  
These reflect the change in the LA/SC ration for 10: 1 to 8.7:1.

As expected, changes only occur for exposures prior to 1972, and changes are relatively small.

\*\*\*\*\*

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[attachment "winmail.dat" deleted by Krista Christensen/DC/USEPA/US] [attachment "AM Data for Fitting NCEA Copy v2.xlsx" deleted by Krista Christensen/DC/USEPA/US] [attachment "NEW GM Data for Fitting NCEA copy v2.xlsx" deleted by Krista Christensen/DC/USEPA/US] [attachment "Cohort\_SRC\_AMGM\_02122013.xlsx" deleted by Krista Christensen/DC/USEPA/US] [attachment "Cohort\_SRC\_AMGM\_02132013.xlsx" deleted by Thomas Bateson/DC/USEPA/US] [attachment "Cohort\_SRC\_AMGM\_02142013.xlsx" deleted by Krista Christensen/DC/USEPA/US]